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ABSTRACT

This microcomputer courseware evaluation form and guide are intended for vocational and technical educators who determine the quality of courseware, professional reviewers who conduct and publish reviews of courseware, and developers who seek to produce high quality courseware for vocational and technical education. The guide includes a brief description and explanation of the evaluation form, a glossary of terms, a suggested procedure for using the evaluation system, and brief explanation of every item in the actual courseware evaluation form. The courseware evaluation form contains three parts: descriptive information about the courseware, courseware evaluative criteria, and a summary rating. (YLB)

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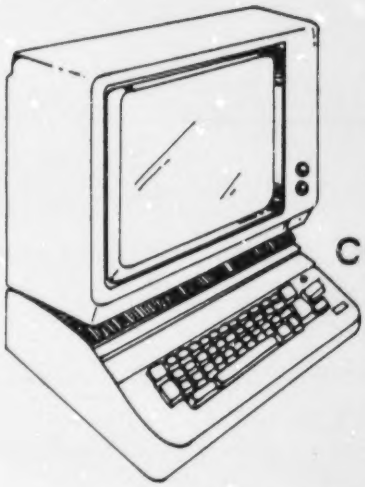

COURSEWARE EVALUATION:

FORM
&
GUIDE

FOR VOCATIONAL AND TECHNICAL EDUCATION

Shirley A. Chase
Ruth Gordon
Richard C. Makin

1984

U.S. DEPARTMENT OF EDUCATION
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INTRODUCTION

Purpose

This booklet consists of a Microcomputer Courseware Evaluation Form and Guide. These products were developed in response to a widely felt need in vocational and technical education for a means to determine the quality of the growing number of microcomputer instructional programs, or *courseware*, available today. The form and guide provide the mechanism for a detailed and comprehensive courseware evaluation.

Audience

Intended audiences for the package are—

- **vocational and technical educators** in all subject matter areas who are determining the quality of courseware,
- **professional reviewers** who conduct and publish reviews of courseware, and
- **developers** who seek to produce high-quality courseware for vocational and technical education.

Suggested Procedures for Use

The courseware evaluation form can be removed from the center of this booklet, leaving the guide intact for future reference. **Users are encouraged to review the entire guide before using the form.**

COURSEWARE EVALUATION GUIDE

Evaluation Form Explanation

Part A

Part A contains descriptive information about the courseware product and should be filled out as accurately and completely as possible. The needed information may be located in the hard-copy documentation or within the program itself. Part A can serve as an initial screening device to determine whether the courseware review should be continued; for example, if the courseware is not compatible with the hardware or instructional setting, it probably would not be worthwhile to continue the evaluation process.

Part B

Related evaluation criteria are organized into eight sections. Each section represents a cluster of criteria needed for courseware evaluation and selection. It is important to note, however, that another element must be added to these criteria in order to arrive at a suitable evaluation of the courseware: your own judgment. Although each criterion is an important indicator of quality, the overall evaluation of the courseware depends on your analysis of these criteria in relation to your own needs; therefore, it is important to keep several points in mind when completing this part of the evaluation form:

- The criteria in the courseware evaluation form are numerous but not exhaustive and represent current knowledge and perceptions regarding courseware evaluation. As technology advances, interpretations of what constitutes high-quality courseware may change.
- An attempt has been made to present the criteria objectively. However, some criteria reflect a certain degree of subjectivity and personal values (e.g., "Program promotes productivity").
- No relative importance is assigned to individual criteria. The value attached to individual criteria is situation-dependent; each user must weigh criteria in light of the situation.
- The suggested evaluation procedure does not explicitly provide for observation of student use of the courseware. This could be included in an evaluation, however, at the judgment of the user.

In completing Part B, the user should first decide which whole sections are applicable to the specific courseware being reviewed and then mark each section either _____ A for applicable or _____ N/A for not applicable. Then a response should be given for every criterion in each section marked A:

- YES indicates that the criterion is fulfilled.
- SOMEWHAT indicates that the criterion is only partially fulfilled.

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- NO indicates that the criterion is not fulfilled within the program but should be.
- N/A indicates that the criterion is not fulfilled and does not need to be.

The COMMENTS column should be completed, at least for every item checked SOMEWHAT, to explain further why that rating was given. When "Application" is checked for Program Mode under Instructional Setting in Part A of the courseware evaluation form, Section VIII should be completed along with any other applicable sections. This is a separate section because of the importance of application programs in vocational and technical education and because they require a different set of criteria for evaluation.

Part C

The purpose of Part C is to provide a means of summarizing your ratings of the courseware being evaluated. Although a complete review using the entire evaluation form is recommended, in certain circumstances Part C could be combined with Part A and used as a short evaluation or initial screening device.

Glossary

Branching	Program is designed so that student progress is determined by the specific answers given.
Courseware	Combination of disk (or other medium of transfer) and the accompanying documentation and materials for instruction.
Disk	Thin, usually flexible, plate on which data or programs are stored.
Documentation	The description and instructions for use of a program. Documentation may be in hard copy or within the program itself.
Feedback	Response of program to user input of information.
Hardware	Either a single item or collection of mechanical or electronic items required for use of a microcomputer program. Examples of hardware include monitors and printers.
Memory	The section of the computer where instructions and data are stored.
Menu	List of choices within a program from which the user makes selections.
Program	Microcomputer unit of instruction that can stand alone.
Program Mode	The method or strategy used in the presentation of the subject matter.
Series	A group of separate programs related to one another in that each program bears, in addition to its own title, a collective title applying to the group as a whole.
Support Materials	Items that support the activities of the persons using the program (e.g., student workbook).

Suggested Courseware Evaluation Procedure

The following is a suggested procedure for evaluating vocational and technical education courseware. It is intended for beginning courseware evaluators. Experienced courseware evaluators and professional reviewers can follow the procedure as is or adapt it in accordance with their background and need. The steps in the procedure are as follows:

1. Review the evaluation guide and form.

2. Review the documentation found in the hard copy and in the program. This will necessitate a cursory run-through of the program.

3. Complete Part A of the courseware evaluation form. The user may not be able to complete all information requested in Part A. Complete as many of the items as possible.

4. Determine the feasibility of continuing the courseware evaluation. If there is compatibility between the items completed in Part A and user needs, the evaluation process should proceed. If there is incompatibility the evaluation process may be discontinued.

5. Run the program as a good student, making correct responses.

6. Rerun the program as a poor student, making incorrect responses.

7. Complete Part B of the courseware evaluation form depending on the program mode checked. If an application program is included in the courseware, complete Section VIII and any other applicable sections of Part B. If the program mode is other than application, complete all applicable sections of Part B, excluding Section VIII.

8. Summarize your ratings in Part B by completing Part C of the courseware evaluation form.

9. Decide if the courseware meets the needs of the students.

Figure 1 presents this suggested courseware evaluation procedure schematically.

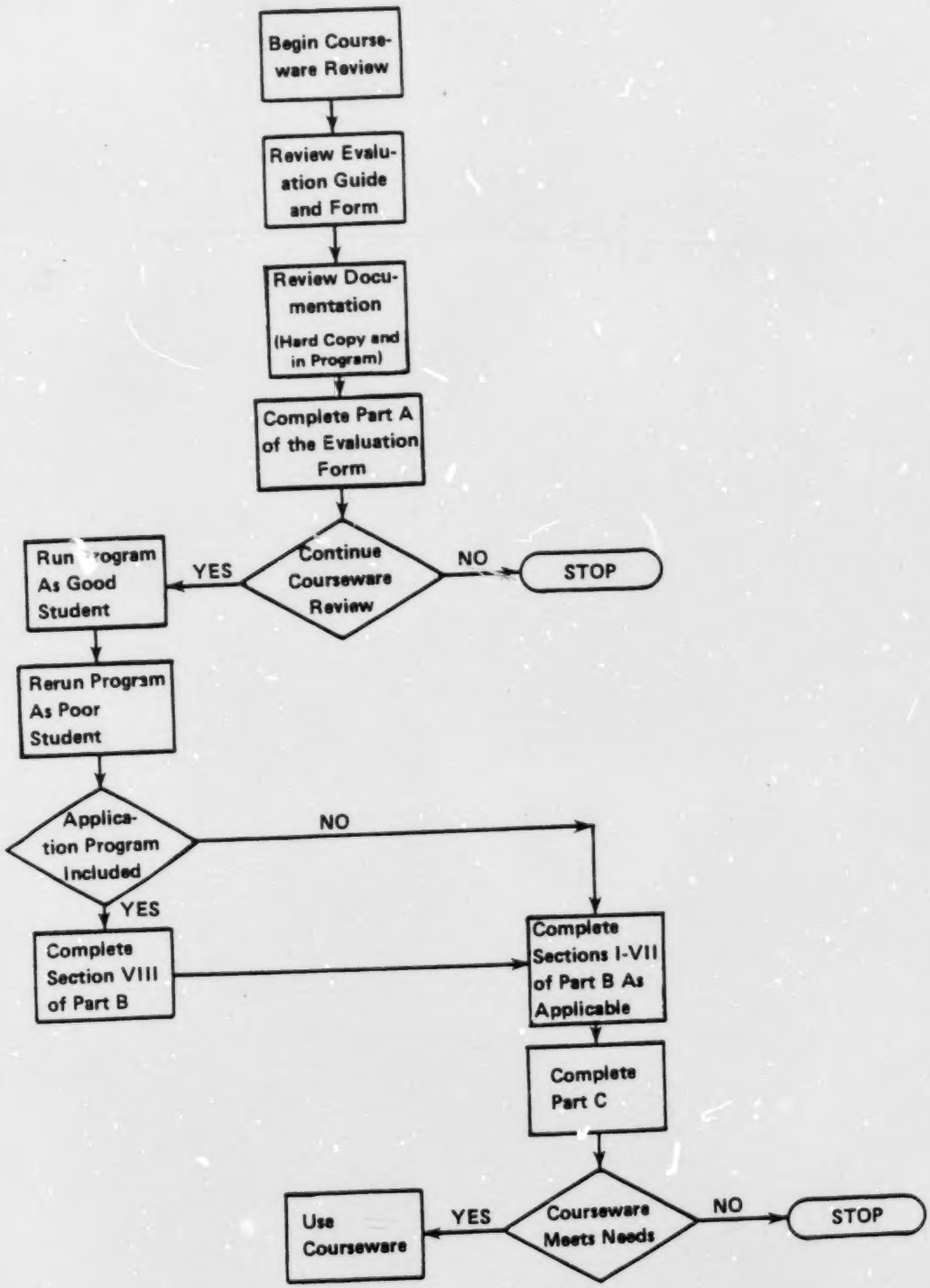
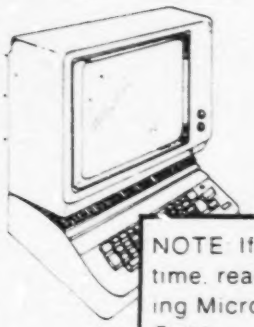


Figure 1. Suggested courseware evaluation procedure

Features of the Evaluation Form

The Microcomputer Courseware Evaluation Form on the following pages—

- is comprehensive, covering all areas of vocational and technical education,
- may be adapted to meet specific instructional needs,
- can be used with all types of courseware,
- is flexible in that only applicable sections need to be used,
- provides space for written comments in addition to checked ratings,
- allows Part A, Description, and Part C, Summary, to be combined and used as a cursory screening evaluation if desired, and
- has an accompanying guide to assist in the use of the form.



COURSEWARE EVALUATION FORM

NOTE: If you are using this form for the first time, read the instructions in the accompanying Microcomputer Courseware Evaluation Guide

Evaluator _____

Position _____

Date _____

Part A: Courseware Description

In the following sections, record descriptive information about the courseware that you are evaluating.

I. IDENTIFICATION

Program Title _____ Date _____

Series Title _____

Vocational Area(s) _____

Subject Area(s) _____

Topic(s) _____

Developing Agency _____

Street or P.O. Box _____

City _____ State _____ Zip _____ Phone( ) _____

Author(s) _____

Programmer(s) _____

II. HARDWARE REQUIREMENTS

Microcomputer* _____
(brand/model)

K Memory Required _____
(number)

Medium of Transfer (include number of each):

__ Tape cassette
__ ROM cartridge
__ 5¼" Flexible disk
__ 8" Flexible disk
__ Other _____
(specify)

Programming Language _____ DOS Specifications _____

Other Specifications _____

Peripherals Needed (check all that apply):

__ Color monitor
__ One disk drive
__ Two disk drives
__ Plotter
__ Game paddle(s)
__ Joystick(s)
__ Modem
__ Mouse
__ Printer
__ Graphics tablet
__ Light pen
__ Voice/sound instrument
__ Clock
__ Video disk
__ Touch screen
__ Ten-key number pad
__ Other _____
(specify)

*NOTE: Provide the above information for any additional hardware on which this program can be used. _____

_____

_____

III. PROGRAM FEATURES (check all that apply):

__ Network version provided
__ Multiple copies required
__ Program can be modified
__ Program protected
__ Data disk needed
__ Field-test data available

IV. INSTRUCTIONAL SETTING

Program mode (check all that apply):

__ Application
__ Drill and practice
__ Educational gaming
__ Simulation
__ Tutorial
__ Other _____ (specify)

Student Target Population (check all that apply):

__ Regular
__ Disadvantaged
__ Handicapped
__ Limited English
__ Bilingual
__ Gifted

Grade Level (check all that apply):

__ K-6
__ 7-8
__ 9-10
__ 11-12
__ 13-14
__ Adult
__ Higher Education

Instructional Grouping (check all that apply):

__ Individual
__ Small group (up to 4)
__ Large group (4 or more)
__ competitive interaction
__ cooperative interaction

Prerequisite Student Skills (specify) _____

Accompanying Materials (specify types):

Documentation _____

Student support materials _____

Teacher support materials _____

Correlated materials _____

Estimated Time for Use _____

V. AVAILABILITY

__ Free_____ (copies)
__ Loan_____ (time)
__ Duplication (requestor supplies disk)
__ Sale $_____
__ Rent $_____ _____ (time)

Copyright Restrictions (explain) _____

Back-up Policy (explain) _____

Preview Policy (explain) _____

Update Policy (explain) _____

Contact _____

Street or P.O. Box _____

City_____ State_____ Zip _____ Phone ( ) _____

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	YES	SOME-WHAT	NO	N/A	COMMENTS
III. STUDENT INTERACTION ___ A ___ N/A					
1. Students can use the program with minimal assistance.					
2. Students are actively involved in the program.					
3. Students control the pace of the program.					
4. Students can access the program "menu(s)" to change activities.					
5. Students are permitted to change answers.					
6. Methods of responding correspond to the level of the program.					
7. Students' errors of entry are processed so that the program continues to run.					
8. Students can access available "help" and "hint" options at any time.					
9. Students can enter or exit the program as desired.					
10. Students control the sequence of the program.					
IV. PROGRAM INTERACTION ___ A ___ N/A					
1. Feedback is immediate.					
2. Cues and prompts are provided to assist students in answering correctly.					
3. Feedback reinforces the correct responses.					
4. Feedback is nonthreatening.					
5. Program helps students understand wrong answers.					
6. Program gives the correct answer after a reasonable number of tries.					
7. Positive reinforcement is varied.					
8. Program has the ability to branch/loop depending upon students' performance.					
9. Feedback is on the level of the student.					
V. STUDENT EVALUATION ___ A ___ N/A					
1. Evaluation provides a means for measuring attainment of objectives.					
2. Program reports which items were missed and which were correct.					

	YES	SOME-WHAT	NO	N/A	COMMENTS
V STUDENT EVALUATION—*Continued*					
3 Individual student performance results are available to the teacher.					
4 Class performance results are available to the teacher.					
5 Program provides for printed copies of evaluations.					
6 Test item formats are suited to the material being tested.					
7 Test items are clearly stated.					
8 Test item bank is provided.					
VI DOCUMENTATION ___ A ___ N/A					
1 Documentation is easy to understand.					
2 Documentation is accurate.					
3 Student objectives are stated.					
4 Underlying concepts are outlined.					
5 Skills to be developed are specified.					
6 Procedures for integrating the program into the curriculum are provided.					
7 Follow-up activities are suggested.					
8 Documentation explains the intended use of support materials.					
9 Sufficient information is provided to operate the program.					
VII WORK BEHAVIORS ___ A ___ N/A					
1 Program helps students identify their vocational skills.					
2 Program promotes pride in work.					
3 Program promotes productivity.					
4 Program encourages good work habits.					
5 Problem solving is encouraged.					
6 Program promotes good human relations skills.					
7 Program provides an opportunity for work satisfaction and self-fulfillment.					
8 Program encourages creativity.					

	YES	SOME-WHAT	NO	N/A	COMMENTS
VIII. APPLICATION PROGRAMS ___ A ___ N/A (to be completed for application programs **only**)					
1. Program is adaptable to the needs of the student.					
2. Commands are easily remembered.					
3. Information is easily manipulated.					
4. Corrections are easy to make.					
5. Program includes all necessary variables.					
6. Program performs reliably.					
7. Program efficiently achieves its intended purpose.					
8. Trial data are supplied for learning to run the program.					
9. Program provides for use of printer when hard copy of information is advantageous.					
10. Program moves from operation to operation efficiently.					
11. Program is compatible with other application programs.					
12. Program has a supplementary tutorial program available.					

Part C: Courseware Evaluation Summary

1 SUMMARY COMMENTS

Identify strengths of the courseware:

Identify weaknesses of the courseware:

Describe uses of the courseware in an instructional setting:

2 SUMMARY OF SECTION

Rate the quality of the courseware for each applicable section of this form by checking the appropriate column; if not applicable, check N/A.

	YES	SOME-WHAT	NO	N/A
I. SUBJECT MATTER: Content has educational value.				
II. TECHNICAL PRESENTATION: Program is free of malfunctions.				
III. STUDENT INTERACTION: Students are actively involved with the program.				
IV. PROGRAM INTERACTION: Feedback is effectively employed.				
V. STUDENT EVALUATION: Evaluation adequately measures student progress.				
VI. DOCUMENTATION: Documentation is sufficient to run the program.				
VII. WORK BEHAVIORS: Program assists students in developing positive work attitudes and skills.				
VIII. APPLICATION PROGRAMS: Program performs the task for which it is intended.				

3. FINAL RECOMMENDATION

Check your recommendation for the courseware and explain your reasons below.

___ Highly recommend
___ Recommend
___ Recommend with reservations
___ Do not recommend

_____

_____

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Microcomputer Courseware Evaluation Guide: Form and Guide
for Vocational and Technical Education

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Courseware Evaluation Form Item Definitions

Part A

An explanation of each item in Part A of the evaluation form is provided on the following pages.

I. IDENTIFICATION

Program Title	Name of the specific microcomputer instructional program (e.g., *Introduction to Patterns*) and date of development.
Series Title	Name of the microcomputer instructional program series of which the specific program is a part (e.g., *Know Your Pattern* is a series of programs).
Vocational Area(s)	One or more vocational or technical areas for which the program could be used: agriculture, business and office, health, home economics, industrial arts, marketing and distributive education, and trade and industrial.
Subject Area(s)	A more specific content level under the vocational area (e.g., textiles and clothing).
Topic(s)	Specific topic(s) covered in the subject area specified (e.g., pattern alterations).
Developing Agency	The organization, agency or individual producing the courseware, address and phone.
Author(s)	Writer(s) of the content of the program.
Programmer(s)	Person(s) writing the content in programming language.

II. HARDWARE REQUIREMENTS

Microcomputer	Type of microcomputer needed to run the program (e.g., Apple IIe).
K Memory Required	Amount of memory needed to run the program (e.g., 48K).
Medium of Transfer	Means used for storing the program (e.g., flexible disk).
Programming Language	Language used to program the content (e.g., BASIC).
DOS Specifications	Disk operating system required (e.g., 3.3).
Other Specifications	Any additional requirements in relation to hardware.
Peripherals Needed	Any add-on hardware units required to run the program (e.g., two joysticks).

III. PROGRAM FEATURES

Network Version Provided	Program runs on a centrally located microcomputer and is relayed to numerous student terminals.
Multiple Copies Required	Disk must remain in disk drive during operation of the program; requiring multiple copies if the program is used by students simultaneously.
Program Can Be Modified	Teacher can exercise the "list" command (access the lines making up the program) to make additions, deletions, or alterations.
Program Protected	Program cannot be listed (e.g., lines making up the program cannot be accessed).
Data Disk Needed	Data on file disk are required for the retrieval of information needed to run the program (e.g., employees and salaries to generate a payroll).
Field-Test Data Available	The results of field testing are available to prospective users of the program.

IV. INSTRUCTIONAL SETTING

Program Mode	Strategy or method used to present the content.
	Application: Provides a service by performing a job (e.g., spreadsheet).
	Drill and Practice: Provides repetition of information or skill previously acquired.
	Educational Gaming: Presents facts in new interesting ways and provides for logical guessing.
	Simulation: Presents real or imaginary events, compressing extended time to develop problem-solving skills in a safe environment.
	Tutorial: Introduces new concept(s) and provides for mastery learning by giving immediate reinforcement.
Student Target Population	Type(s) of student for which the program was developed.
Grade Level(s)	Educational level(s) for which the program is intended.
Instructional Grouping	Instructional grouping(s) of students with which the program can be used. If designed for group use, will the program stimulate cooperative or competitive interaction?
Prerequisite Student Skills	Competencies students must have before using the program.

Documentation	Instructions for using the program. Specify whether these are given in the program or in printed form.
Student Support Materials	Accompanying materials for student use (e.g., handouts, workbooks).
Teacher Support Materials	Accompanying materials for teacher use (e.g., program guide, tests).
Correlated Materials	The program and other instructional materials (e.g., textbook) are complementary.
Estimated Time for Use	Approximate time required to use the entire program.

V. AVAILABILITY

Free, Loan, Duplication, Sale, Rent	Means by which the program may be obtained.
Copyright Restrictions	The program is copyrighted (i.e., reproduction or distribution of the program is forbidden without approval).
Back-up Policy	Vendor makes a second copy of the program available free or at a reduced cost.
Preview Policy	Courseware may be previewed before purchase under certain conditions.
Update Policy	Vendor provides revised versions of the program.
Contact	Name, address, and phone of organization, agency, or individual from which the courseware may be obtained.

Part B

An explanation of each criterion in Part B of the evaluation form is provided on the following pages.

I. SUBJECT MATTER

1. Subject matter is a timely practical component of the curriculum and reflects information or skills that can be used by students in their occupational fields.

2. Learning outcomes are clearly identified for students. Objectives are presented at the beginning or placed throughout the program to reflect the progressive order of the desired learning.

3. Information is correct (e.g., graphs, text, statistics).

4. Subject matter is organized to reflect the usual sequence of events (e.g., simple to complex, chronological order).

5. Racial, ethnic, or sex groups are neither overrepresented nor underrepresented. There are no inaccurate or biased generalizations about the characteristics of these groups.

6. Vocabulary, readibility level, difficulty of the material, and interest level are suited to the students.

7. The subject matter reflects the actual knowledge and skills currently used in the occupational area.

8. Subject matter is written and presented in a manner to engage and maintain students' interest in learning the concepts or skills.

9. Important ideas and concepts are reinforced (e.g., by emphasis, repetition, questioning). These same ideas and concepts are synthesized in summary.

10. Microcomputer capabilities (e.g., immediate feedback, untiring repetition) appear to provide one of the best ways of presenting the subject matter.

II. TECHNICAL PRESENTATION

1. Program runs consistently throughout without glitches (e.g., program does not stall).

2. The program displays text, makes calculations, draws graphics, and gives feedback fast enough to maintain students' interest.

3. Information is displayed in a format that is well designed and uncluttered. Text is not obscured by overlay of graphics.

4. Words are spelled correctly; grammar and punctuation are accurate throughout the program.

5. Instructions are consistent and unambiguous; complete, understandable directions are given for running the program.

6. When color is used, it does not detract from the intended purpose of the program (e.g., color makes material more realistic and interesting).

7. Audio is clear in tone and understandable. The audio does not distract students from the educational impact of the program. The program has an option to delete the audio when desired.

8. Graphics, either still or animated, do not detract from the subject matter presented. They illustrate and add meaning to the material.

III. STUDENT INTERACTION

1. Students can use the program without excessive assistance from the teacher.

2. Program promotes active rather than passive involvement of students by encouraging thinking and problem solving.

3. Students have control over the amount of time spent on each activity, thus individualizing the instruction to their specific needs.

4. A list of choices from which students can select is provided. Easy access to this list is available so students can make other selections when desired.

5. The program offers a way of going back to make changes when a wrong answer or response is given.

6. The complexity of the type of response is based on the capability level of the students (e.g., excessive keyboarding is not required if it has not been taught).

7. The program is "crash-proof." It does not stop or forfeit information when students either give wrong responses accidentally or try deliberately to make it fail.

8. When a student requests "Help," the program gives further instructions, reviews previous instructions, or provides assistances in progressing through the program.

9. The program provides students with the opportunity to exit when necessary (e.g., class period ends before program is completed) and to reenter at point ended, rather than start at beginning of the program again.

10. Students can change the order in which they go through the program. This permits them to go back to review or pick up information not covered.

IV. PROGRAM INTERACTION

1. Program interacts as soon as student response is made (e.g., informs student of accuracy of answers, presents further information, or explains previous information).

2. If the wrong answer is given, the program provides further information or clues (e.g., number of letters in the correct word is provided.)

3. Correct responses are recognized in a positive manner (e.g., student is complimented on correct answer). The program's response to incorrect answers is not so interesting that incorrect responses are encouraged.

4. Students are not addressed in a derogatory manner (e.g., "You dummy") when incorrect answer is given.

5. Program does more than merely review the material; it provides the reason that the answer is incorrect (e.g., "Answer B is wrong because . . .").

6. The student is not permitted to continue making incorrect answers indefinitely. It is not possible to arrive at the correct answer by the process of elimination.

7. The type of positive reinforcement changes as the program progresses, since feedback such as "You're terrific" becomes tiresome when overused.

8. Program offers activities based upon the student's responses. Branching offers alternative activities, with different levels of difficulty or interest. Looping is a repeat of the activity for review.

9. The type and content of the feedback are geared to student comprehension.

V. STUDENT EVALUATION

1. Evaluation included in the program (whether test items or performance type) is based on the stated student objectives and indicates progress toward attainment of the objectives.

2. The results of each student's performance on the evaluation are provided by the program (e.g., test score, items correct, items wrong). This information is protected by a separate password for use by the individual student and the teacher.

3. Program identifies for individual students the items for which correct and incorrect responses were made. This assists students and teachers in understanding what corrective measures need to be taken. This information is protected by a separate password for use by the individual student and the teacher.

4. A composite view of class performance is given (e.g., average, range, percentiles) on the evaluation. This information is protected by a separate password for use by the teacher.

5. Hard copy of both individual student and composite class results is available to the teacher to facilitate record keeping. Hard copy of individual test results is available to the student.

6. The type of test item used (e.g., true-false, multiple choice, performance) is varied to reflect the best method of determining student attainment of objectives.

7. Test items are easy to understand. Content and vocabulary are consistent with those in the subject matter presented.

8. A data bank of test items provides the teacher with the capability of generating tests by a random sampling of items.

VI. DOCUMENTATION

1. The language, vocabulary, and organization of the material in the documentation are easily comprehended.

2. All information is correct (e.g., graphs, text, statistics).

3. Expected learning outcomes are listed. If particular skills are to be developed, they are specified.

4. An explanation of the ideas and principles from which the program was developed is given.

5. The particular skills to be learned through using the program are stated.

6. The teacher is given specific suggestions on where and how to combine the program with the existing curriculum.

7. Suggested follow-up activities geared to the students are given to reinforce the information presented.

8. Recommendations on where and how to use all student materials are given.

9. All necessary information is provided so that teachers or students can run the program from start to finish regardless of prior experience.

VII. WORK BEHAVIORS

1. Students are made aware of their competencies in relation to their intended occupations. Individual strengths and weaknesses can be determined and used as guidelines for further development.

2. Program presents all work as tasks to be approached and carried out in a conscientious manner. Regardless of the nature of the work, students are always encouraged to "give it their best effort."

3. Program encourages the achievement of maximum outcomes through the use of available resources.

4. Positive behaviors are advocated for getting, performing, and keeping a job. These behaviors include dependability, punctuality, cooperation, and initiative.

5. Program encourages students to solve problems and make decisions that have transferability to their occupations and everyday lives.

6. Emphasis is placed on "people skills"—the ability to communicate and get along with people.

7. Students complete the program feeling that they have accomplished something. Equally important, the means of accomplishment leaves students feeling good about themselves and their ability to complete the task.

8. Individual creativity is promoted through the opportunity to develop new ideas, products, or ways of performing tasks.

VIII. APPLICATION PROGRAMS

1. Program offers sufficient versatility and detail that the coverage and complexity of the program can be changed to meet the specific needs of the students using it.

2. Specific commands or instructions to enter and manipulate data are logical in nature and simple to use.

3. Process required to change data (frequently numbers) is simple to understand and easy to use.

4. Information being used in the program can be corrected or changed at any time without having to rerun the entire program.

5. All fields and variables necessary to perform the task are available, or the program is adaptable so the necessary variables and fields can be added.

6. Program provides the same answer or outcome each time, so that one can depend on its accuracy.

7. Program performs the task it is supposed to do.

8. Supplementary information or data source is provided to use in learning to run the program.

9. Program provides for printer use when hard copy of the resulting information is advantageous.

10. The sequence in moving from one operation to another is easy to understand and implement.

11. Program is either *bundled* (designed to be compatible with other application programs) or *integrated* (developed specifically to be combined with other particular application programs).

12. Tutorial program presents the concepts and information needed in learning to operate the application program.

Part C

An explanation of each item in Part C of the evaluation form is provided as follows.

1. SUMMARY COMMENTS	Describe the advantages of this particular courseware. If possible, compare it with other courseware reviewed. Describe the disadvantages of this particular courseware. If possible, compare it with other courseware reviewed. Explain different ways the courseware might be used in learning situations, both in the classroom and in informal settings.
2. SUMMARY OF SECTION EVALUATIONS	Summarize the rating of the courseware by section of Part B of the evaluation form.
3. FINAL RECOMMENDATION	Give a final overall rating of the courseware for instructional use and a brief explanation of why that rating was given.